

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of: Janne La. AALTONEN <i>et al.</i>	Confirmation No.: 6181
Application No.: 10/803,684	Examiner: Shiu, Ho T
Filed: March 18, 2004	Group Art Unit: 2457

For: SYSTEM AND ASSOCIATED TERMINAL, METHOD AND COMPUTER  
PROGRAM PRODUCT FOR UPLOADING CONTENT

Commissioner for Patents  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

Dear Sir:

This Appeal Brief is submitted in support of the Notice of Appeal dated January 27, 2011.

**I. REAL PARTY IN INTEREST**

Nokia Corporation is the real party in interest.

**II. RELATED APPEALS AND INTERFERENCES**

Appellants are unaware of any related appeals and interferences.

**III. STATUS OF THE CLAIMS**

Claims 23-58, 60-80, and 86-130 are pending in this Application. Claims 1-22, 59, and 81-85 have been canceled, and claims 23, 40, 42-45, 55, 58, 72, 74, 75, 77-80, 96, 97, 99-102, 119, and 121-130 have been previously presented.

Claims 23-58, 60-80, and 86-130 were finally rejected in an Office Action dated October 27, 2010. It is from the rejection of claims 23-58, 60-80, and 86-130 on October 27, 2010, that this Appeal is taken.

#### **IV. STATUS OF AMENDMENTS**

No Amendment has been filed subsequent to the issuance of the Office Action on October 27, 2010.

#### **V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

The claimed invention relates to uploading content from the sender to a recipient after determining an upload schedule relating to the time and/or manner of uploading the content. After an interruption occurs in the upload session, the sender sends to the receiver a list of completely uploaded data packet identifiers each uniquely identifying one corresponding data packet within the upload session thereby reestablish the upload session.

Independent claim 23 reads as follows:

23. An apparatus comprising (*see, e.g.*, 32 in Fig. 4; 102 in FIG. 6, 9 and 11):

at least one processor (*see, e.g.*, 64 in FIG. 4); and

at least one memory including computer program code for one or more programs (*see, e.g.*, 66, 68 in FIG. 4),

the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to perform at least the following,

determine to transmit an upload request for content from an apparatus via a network to a recipient, wherein the content comprising a plurality of data packets (*see, e.g.*, Abstract, ¶¶ [0061], [0096] of the corresponding US Pub. 20050209927; 102, 104 in FIG. 6, 9 and 11);

receive from the recipient in response to the upload request, an upload schedule relating to at least one of a time and a manner of uploading the content in an upload session (*see, e.g.*, Abstract, ¶¶ [0061], [0074]);

determine to upload the content to the recipient in accordance with the upload schedule (*see, e.g.*, Abstract, ¶ [0074]);

after an interruption occurs in the upload session, receive a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session (*see, e.g.*, ¶¶ [0109], [0110]); and

reestablish the upload session to upload to the recipient each of the remaining packets that is not completely uploaded (*see, e.g.*, ¶¶ [0111], [0112]).

Dependent claim 40 reads as follows:

40. An apparatus according to Claim 39, wherein the apparatus is further caused to upload the at least one information packet that enables the recipient to monitor the uploaded data packets to determine, based upon at least one information packet, the at least one information packet including information of a number of data packets to be received between the at least one information packet and an information packet immediate before or after the at least one information packet, if an interruption occurs in uploading the plurality of data packets such that the recipient receives less than the plurality of data packets of the content, and if an interruption

occurs in uploading the plurality of data packets, to thereby enable the recipient to recover the content such that the recipient receives the plurality of data packets (*see, e.g.*, ¶¶ [0102]-[0108]; FIG. 10).

Independent claim 45 reads as follows:

45. An apparatus comprising (*see, e.g.*, 36 in FIG. 3; 104 in FIG. 6, 9 and 11):  
at least one processor (*see, e.g.*, 48 in FIG. 3); and  
at least one memory including computer program code for one or more programs (*see, e.g.*, 54, 56 in FIG. 3),  
the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to perform at least the following,  
receive an upload request for content from a sender via a network, wherein the content comprising a plurality of data packets (*see, e.g.*, Abstract, ¶¶ [0061], [0096]; 102 in FIG. 6, 9 and 11);  
determine, in response to the request, an upload schedule relating to at least one of a time and a manner of the sender uploading the content to the apparatus in an upload session (*see, e.g.*, Abstract, ¶¶ [0061], [0074]);  
receive the content from the sender in accordance with the upload schedule (*see, e.g.*, Abstract, ¶ [0074]);  
track during the upload session received data packets and assembling a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session (*see, e.g.*, ¶ [0108]); and

after an interruption occurs in the upload session, determine to transmit the list of completely uploaded data packet identifiers to the sender for transmitting to the apparatus each of the remaining packets that is not completely uploaded (*see, e.g.*, ¶¶ [0109], [0110]).

Independent claim 58 reads as follows:

58. A method comprising:

receiving an upload request for content from a sender via a network at an apparatus, wherein the content comprising a plurality of data packets (*see, e.g.*, Abstract, ¶¶ [0061], [0096]; 102, 104 in FIG. 6, 9 and 11);

determining, in response to the request, an upload schedule relating to at least one of a time and a manner of the sender uploading the content to the apparatus in an upload session (*see, e.g.*, Abstract, ¶¶ [0061], [0074]);

receiving the content from the sender at the apparatus in accordance with the upload schedule (*see, e.g.*, Abstract, ¶ [0074]);

tracking at the apparatus during the upload session received data packets and assembling a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session (*see, e.g.*, ¶ [0108]); and

after an interruption occurs in the upload session, determining to transmit the list of completely uploaded data packet identifiers from the apparatus to the sender for transmitting to the apparatus each of the remaining packets that is not completely uploaded (*see, e.g.*, ¶¶ [0109], [0110]).

Dependent claim 75 reads as follows:

75. A method according to Claim 58, further comprising:

monitoring the received data packets to determine, based upon at least one information packet, the at least one information packet including information of a number of data packets to be received between the at least one information packet and an information packet immediate before or after the at least one information packet, if an interruption occurs in uploading the plurality of data packets such that the apparatus receives less than the plurality of data packets of the content (*see, e.g.*, ¶¶ [0102]-[0108]; FIG. 10); and if an interruption occurs in uploading the plurality of data packets, recovering the content such that the apparatus receives the plurality of data packets (*see, e.g.*, ¶¶ [0104], [0107]).

Independent claim 80 reads as follows:

80. A computer program product for uploading content, the computer program product comprising at least one computer-readable storage medium having computer-readable program code portions stored therein that in response to execution by a processor, cause an apparatus to at least perform the following:

receiving an upload request for content from a sender via a network, wherein the content comprising a plurality of data packets (*see, e.g.*, Abstract, ¶¶ [0061], [0096]; 102, 104 in FIG. 6, 9 and 11);

determining, in response to the request, an upload schedule relating to at least one of a time and a manner of the sender uploading the content to the apparatus in an upload session (*see, e.g.*, Abstract, ¶¶ [0061], [0074]);

receiving the content from the sender in accordance with the upload schedule (*see, e.g.*, Abstract, ¶ [0074]);

tracking during the upload session received data packets and assembling a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session (*see, e.g.*, ¶ [0108]); and  
after an interruption occurs in the upload session, determining to transmit the list of completely uploaded data packet identifiers to the sender for transmitting to the apparatus each of the remaining packets that is not completely uploaded (*see, e.g.*, ¶¶ [0109], [0110]).

Dependent claim 97 reads as follows:

97. A computer program product according to Claim 96, wherein the apparatus is caused to further perform:

monitoring the received data packets to determine, based upon at least one information packet, the at least one information packet including information of a number of data packets to be received between the at least one information packet and an information packet immediate before or after the at least one information packet, if an interruption occurs in uploading the plurality of data packets such that the apparatus receives less than the plurality of data packets of the content (*see, e.g.*, ¶¶ [0102]-[0108]; FIG. 10); and  
if an interruption occurs in uploading the plurality of data packets, recovering the content such that the apparatus receives the plurality of data packets (*see, e.g.*, ¶¶ [0104], [0107]).

Independent claim 102 reads as follows:

102. A method comprising:

determining to transmit an upload request for content from an apparatus via a network to a recipient, wherein the content comprising a plurality of data packets (*see, e.g.*, Abstract, ¶¶ [0061], [0096]; 102, 104 in FIG. 6, 9 and 11);

receiving from the recipient at the apparatus, in response to the upload request, an upload schedule relating to at least one of a time and a manner of uploading the content in an upload session (*see, e.g.*, Abstract, ¶¶ [0061], [0074]);

determining by the apparatus to upload the content to the recipient in accordance with the upload schedule (*see, e.g.*, Abstract, ¶ [0074]);

after an interruption occurs in the upload session, receiving at the apparatus a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session (*see, e.g.*, ¶¶ [0109], [0110]); and

reestablishing by the apparatus the upload session to upload to the recipient each of the remaining packets that is not completely uploaded (*see, e.g.*, ¶¶ [0111], [0112]).

Dependent claims 119 and 126-128 read as follows:

119. A method according to Claim 118, further comprising:

uploading the at least one information packet that enables the recipient to monitor the uploaded data packets to determine, based upon at least one information packet, the at least one information packet including information of a number of data packets to be received between the at least one information packet and an information packet immediate before or after the at least one information packet, if an interruption occurs in uploading the plurality of data packets such that the recipient receives less than the plurality of data packets of the content (*see, e.g.*, ¶¶ [0102]-[0108]; FIG. 10), and



if an interruption occurs in uploading the plurality of data packets, recovering the content such that the recipient receives the plurality of data packets (*see, e.g.*, ¶¶ [0104], [0107]).

126. A method according to Claim 78, wherein the at least one information packet further includes information uniquely describing the data packets before or after the information packet (*see, e.g.*, ¶¶ [0102], [0103]).

127. A method according to Claim 126, wherein information uniquely describing the data packets includes a sequence of packet cyclic redundancy checks (*see, e.g.*, ¶ [0102]).

128. A method according to Claim 78, wherein the number of data packets to be received between two information packets varies (*see, e.g.*, ¶ [0104]).

## **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

A. Claims 23, 34, 35, 45, 51, 52, 58, 69, 70, 80, 91, 92, 102, 113, 114, 118, 129 and 130 were rejected under 35 U.S.C. §103(a) for obviousness predicated upon *Airy et al.* (US 20020142780) in view of *Chu et al.* (US 20020049853) and *Redeske* (US 6957374).

B. Claims 24, 29, 30, 46, 64, 65, 80, 86, 87, 103, 108, and 109 were rejected as obvious under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *Brown et al.* (US 20020194205).

C. Claims 25-28, 46, 47, 60-63, 82- 85, and 104-108 were rejected as obvious under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *McDonnell et al.* (US 7257386).

D. Claims 33, 37, 39-42, 50, 53, 54, 56, 68, 72, 73, 75-77, 84-95, 97-99, 112, 116, 117, 119, 120, and 121 were rejected as obvious under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *Kohno* (US 20030120802).

E. Claims 32, 49, 67, 89, and 112 were rejected as obvious under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *Squibbs et al.* (US 20040198426).

F. Claims 36, 71, 93, and 115 were rejected as obvious under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *Kobayashi et al.* (WO 2003/026216).

G. Claims 31, 66, 88, and 110 were rejected as obvious under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske*, *Brown* and *Kohno*.

H. Claims 43, 44, 78, 79, 100, 101, 122, 123, and 126-128 were rejected as obvious under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* *Kohno* and *Deen* (US 20030167317).

I. Claims 74, 124, and 125 were rejected as obvious under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske*, and *Harrington et al.* (US 6289012).

## **VII. ARGUMENT**

### **GROUPING OF CLAIMS**

For the convenience of the Honorable Board of Patent Appeals and Interferences (“Board”), since all independent claims include the same or similar distinctive features, Appellants select independent claim 23 of the group of independent claims 23, 45, 58, 80, and 102 to argue. Appellants will therefore focus on Rejection A above that includes independent claim 23.

The appealed claims do not stand or fall together. Appellants separately argue the patentability of: claims 40, 75, 97, and 119 in Rejection D; and claims 126-128 in Rejection H.

**A. CLAIMS 23, 34, 35, 45, 51, 52, 58, 69, 70, 80, 91, 92, 102, 113, 114, 118, 129, AND 130 ARE NOT RENDERED OBVIOUS BY *AIRY ET AL. IN VIEW OF CHU ET AL. AND REDESKE***

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As stated above, the Examiner bears initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention under any statutory provision. In rejecting a claim under 35 U.S.C. §103(a), the Examiner is required to provide a factual basis to support the obviousness conclusion. *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967); *In re Lunsford*, 357 F.2d 385, 148 USPQ 721 (CCPA 1966); *In re Freed*, 425 F.2d 785, 165 USPQ 570 (CCPA 1970). Further, in rejecting a claim under 35 U.S.C. §103(a) it is incumbent upon the Examiner to establish the requisite motivation. As maintained by the Supreme Court of the United States in *KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727 at 1741, an obviousness “analysis should be made explicit.” See, *In re Kahn*, 441 F.3d 977, 988 (C.A. Fed. 2006) (“[R]jections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusions of obviousness”). Indeed, the Examiner is required to make specific factual findings, not generalizations. See *M.P.E.P. §2144.08 II. A. 5*. That initial burden required by procedural due process of law has not been discharged.

Appellants submit that the Examiner’s obviousness rejection is not factually viable, as all features of the claims are not disclosed by the applied references, taken singly or in combination. As admitted by the Examiner in the Office Action of October 27, 2010 (p. 5, 2<sup>nd</sup> paragraph), *Airy et al.* and *Chu et al.* (US 20020049853) do not disclose “**after an interruption occurs** in the upload session, receiving **a list of completely uploaded data packet identifiers** each of which uniquely identifies one corresponding data packet within the upload session.”

The Examiner asserted that *Redeske* provides the missing teachings. However, after an interruption occurs, *Redeske* reports **gaps** (by reporting first and last packet IDs of a group of missing packets, and skipping packet IDs in-between), rather than **a list of received packets**, thereby teaching away the claimed invention. *Redeske* simply does not transmit **the list of completely uploaded data packet identifiers** from the recipient to the sender, after an interruption occurs in the upload session.

With respect to the conventional acknowledge messages described in *Redeske*, e.g., US Pat. No. 5553083, it criticizes a slow **packet-by-packet** acknowledgment mechanism that sends one acknowledgement message per packet by the client without tracking a list of completely received packet IDs. Instead, Pat. '083 deploys a **block** acknowledgment mechanism. A recipient informs a sender which packets were received **per block**.

When acknowledging per block, a “block positive” acknowledgment is sent only when all packets in the block were received and **no interruption occurs**. In this case, the block positive acknowledgment is not conditioned upon “**after an interruption occurs** in the upload session.” In addition, a “block positive” acknowledgment for a particular block only indicates **the particular block ID** that was received correctly in its entirety at the client, but not indicating “**a list of completely uploaded data packet identifiers**.”

As to a “selective reject negative” acknowledgment, Pat. '083 only indicates which frames/packets were **received in error or not received**, but not indicating “a list of **completely uploaded** data packet identifiers”.

*Redeske* and the prior art references described therein do not disclose or suggest “**after an interruption occurs** in the upload session, receiving **a list of completely uploaded data packet**

**identifiers** each of which uniquely identifies one corresponding data packet within the upload session.”

Based on the foregoing, it is apparent that *Redeske* neither discloses nor suggests the claimed features that are admittedly missing from the primary reference to *Airy et al.* Therefore, even if, for the sake of argument, the applied references are combined as proposed by the Examiner, and Appellants do not agree that the requisite basis for the asserted motivation has been established, the features of independent claims 23, 45, 58, 80, and 102 would not result.

**B. CLAIMS 24, 29, 30, 46, 64, 65, 80, 86, 87, 103, 108, AND 109 ARE NOT RENDERED OBVIOUS BY *AIRY ET AL.* IN VIEW OF *CHU ET AL.*, *REDESKE, AND BROWN ET AL.***

Claims 24, 29, and 30 depend from independent claim 23; claim 46 depends from independent claim 45; claims 64 and 65 depend from independent claim 58; claims 86 and 87 depend from independent claim 80; and claims 103, 108, and 109 depend from independent claim 102. Appellants incorporate herein the arguments previously advanced in traversing the imposed rejection of claims 23, 45, 58, 80, and 102 under 35 U.S.C. §103(a), particularly the fact that these references do not disclose the claim features of “after an interruption occurs in the upload session, receiving a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session.” These deficiencies are not cured by *Brown et al.*, relied upon for the features including “deleting the content after uploading the content to the recipient.”

Appellants therefore submit that the imposed rejection of claims 24, 29, 30, 46, 64, 65, 80, 86, 87, 103, 108, and 109 under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *Brown et al.* is not factually or legally viable.

**C. CLAIMS 25-28, 46, 47, 60-63, 82- 85, AND 104-108 ARE NOT RENDERED OBVIOUS BY *AIRY ET AL. IN VIEW OF CHU ET AL., REDESKE, AND MCDONNELL ET AL.***

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Claims 25-28 depend from independent claim 23; claims 46 and 47 depend from independent claim 45; claims 60-63 depend from independent claim 58; claims 82-85 depend from independent claim 80; and claims 104-108 depend from independent claim 102. Appellants incorporate herein the arguments previously advanced in traversing the imposed rejection of claims 23, 45, 58, 80, and 102 under 35 U.S.C. §103(a), particularly the fact that these references do not disclose the claim features of “after an interruption occurs in the upload session, receiving a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session.” These deficiencies are not cured by *McDonnell et al.*, relied upon for the features of “receive information reflecting a current state of at least one of the recipient or the apparatus before uploading the content.”

Appellants therefore submit that the imposed rejection of claims 25-28, 46, 47, 60-63, 82-85, and 104-108 under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *McDonnell et al.* is not factually or legally viable.

**D. CLAIMS 33, 37, 39-42, 50, 53, 54, 56, 68, 72, 73, 75-77, 84-95, 97-99, 112, 116, 117, 119, 120, AND 121 ARE NOT RENDERED OBVIOUS BY *AIRY ET AL. IN VIEW OF CHU ET AL., REDESKE, AND KOHNO***

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Claims 33, 37, 39-42 depend from independent claim 23; claims 50, 53, 54, and 56 depend from independent claim 45; claims 68, 72, 73, and 75-77 depend from independent claim 58; claims 84-95, and 97-99 depend from independent claim 80; and claims 112, 116, 117, and 120 depend from independent claim 102. Appellants incorporate herein the arguments previously advanced in traversing the imposed rejection of claims 23, 45, 58, 80, and 102 under 35 U.S.C. §103(a), particularly the fact that these references do not disclose the claim features of “after an

interruption occurs in the upload session, receiving a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session.” These deficiencies are not cured by *Kohno*, relied upon for the features including “the content including a plurality of pieces,” “information packets,” etc.

With respect to claims 40, 75, 97, and 119, the Examiner did not clearly explain how the paragraphs cited on pages 21-22 of the Office Action were used to satisfy claim 40. The Examiner appeared to rely on *Redeske*’s list of gaps among received data packets (p. 21, last paragraph of the Office Action) as information packets recited in claim 40. However, *Redeske*’s gaps are reported in an acknowledgement message sent out **after processing of either (1) a data message, (2) a user-definable number of data packets, or (3) a time period** (col. 4, lines 18-29; col. 5, lines 39-44; col. 6, lines 1-9), while an **information packet** of a data message is sent out **only during a uploading session** of the data message.

*Redeske*’s gaps are reported in an acknowledgement message sent out at different timings/conditions from the claimed inventions. When there are limited numbers of gaps, the whole acknowledgement message may be sent in one packet. When there are many gaps, the whole acknowledgement message may be sent via several packets. Therefore, *Redeske* does not disclose that “the apparatus is further caused to **upload** the at least one **information packet** that enables the recipient to monitor the uploaded data packets to determine, based upon at least one information packet, the at least one information packet including information of a number of data packets to be received between the at least one information packet and an information packet immediate before or after the at least one information packet, if an interruption occurs in uploading the plurality of data packets such that the recipient receives less than the plurality of data packets of the content, and **if an interruption occurs in uploading** the plurality of data

packets, to thereby enable the recipient to recover the content such that the recipient receives the plurality of data packets.”

Appellants therefore submit that the imposed rejection of claims 33, 37, 39-42, 50, 53, 54, 56, 68, 72, 73, 75-77, 84-95, 97-99, 112, 116, 117, 120, and 121 under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *Kohno* is not factually or legally viable.

**E. CLAIMS 32, 49, 67, 89, AND 112 ARE NOT RENDERED OBVIOUS BY AIRY ET AL. IN VIEW OF CHU ET AL., REDESKE, AND SQUIBBS ET AL**

Claim 32 depends from independent claim 23; claim 49 depends from independent claim 45; claim 67 depends from independent claim 58; claim 89 depends from independent claim 80; and claim 112 depends from independent claim 102. Appellants incorporate herein the arguments previously advanced in traversing the imposed rejection of claims 23, 45, 58, 80, and 102 under 35 U.S.C. §103(a), particularly the fact that these references do not disclose the claim features of “after an interruption occurs in the upload session, receiving a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session.” These deficiencies are not cured by *Squibbs et al.*, which is relied upon for a supposed teaching of “the upload schedule including at least one instruction defining at least one deadline for uploading the content.”

Appellants therefore submit that the imposed rejection of claims 32, 49, 67, 89, and 112 under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *Squibbs et al.* is not factually or legally viable.



**F. CLAIMS 36, 71, 93, AND 115 ARE NOT RENDERED OBVIOUS BY *AIRY ET AL. IN VIEW OF CHU ET AL., REDESKE, AND KOBAYASHI ET AL.***

Claim 36 depends from independent claim 23; claim 71 depends from independent claim 58; claim 93 depends from independent claim 80; and claim 115 depends from independent claim 102. Appellants incorporate herein the arguments previously advanced in traversing the imposed rejection of claims 23, 58, 80, and 102 under 35 U.S.C. §103(a), particularly the fact that these references do not disclose the claim features of “after an interruption occurs in the upload session, receiving a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session.” These deficiencies are not cured by *Kobayashi et al.*, which is relied upon for a supposed teaching of “receiving a trigger to send an upload request.”

Appellants therefore submit that the imposed rejection of claims 36, 71, 93, and 115 under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *Kobayashi et al.* is not factually or legally viable.

**G. CLAIMS 31, 66, 88, AND 110 ARE *AL. IN VIEW OF CHU ET AL.*, NOT RENDERED OBVIOUS BY *AIRY ET AL. IN VIEW OF CHU ET AL., REDESKE, BROWN AND KOHNO***

Claim 31 depends from independent claim 23; claim 66 depends from independent claim 58; claim 88 depends from independent claim 80; and claim 110 depends from independent claim 102. Appellants incorporate herein the arguments previously advanced in traversing the imposed rejection of claims 23, 58, 80, and 102 under 35 U.S.C. §103(a), particularly the fact that these references do not disclose the claim features of “after an interruption occurs in the upload session, receiving a list of completely uploaded data packet identifiers each of which uniquely identifies

one corresponding data packet within the upload session.” These deficiencies are not cured by *Brown* and *Kohno*, which is relied upon for a supposed teaching of “breaking up the upload content into a plurality of portions.”

Appellants therefore submit that the imposed rejection of claims 31, 66, 88 and 110 under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske*, *Brown* and *Kohno* is not factually or legally viable.

**H. CLAIMS 43, 44, 78, 79, 100, 101, 122, 123, 126-128 ARE NOT RENDERED OBVIOUS BY *AIRY ET AL. IN VIEW OF CHU ET AL., REDESKE, AND DEEN***

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Claims 43 and 44 depend from independent claim 23; claims 78, 79 and 126-128 depend from independent claim 58; claims 101 and 101 depend from independent claim 80; and claims 122 and 123 depend from independent claim 102. Appellants incorporate herein the arguments previously advanced in traversing the imposed rejection of claims 23, 45, 58, 80, and 102 under 35 U.S.C. §103(a), particularly the fact that these references do not disclose the claim features of “after an interruption occurs in the upload session, receiving a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session.” These deficiencies are not cured by *Deen*, which is relied upon for supposed features of “a HTTP POST or a HTTP PUT technique.”

In addition, the cited portion in *Airy* and *Redeske* are silent with respect to the specific features of **information packet** recited in claims 126-128.

Appellants therefore submit that the imposed rejection of claims 43, 44, 78, 79, 100, 101, 122, 123, and 126-128 under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *Deen* is not factually or legally viable.

**I. CLAIMS 74, 124, AND 125 ARE NOT RENDERED OBVIOUS BY *AIRY ET AL. IN VIEW OF CHU ET AL., REDESKE, AND HARRINGTON ET AL* .**

Claims 74, 125, and 125 depends from independent claim 58. Appellants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 58 under 35 U.S.C. §103(a), particularly the fact that these references do not disclose the claim features of “after an interruption occurs in the upload session, receiving a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session.” These deficiencies are not cured by *Harrington et al.*, which is relied upon for a supposed teaching of “pushing the upload schedule to the sender.”

Appellants therefore submit that the imposed rejection of claims 74, 124, and 125 under 35 U.S.C. §103(a) based on *Airy* in view of *Chu*, *Redeske* and *Harrington et al.* is not factually or legally viable.

**VIII. CONCLUSION AND PRAYER FOR RELIEF**

Based on the foregoing, it is apparent that none of the Examiner’s rejections under 35 U.S.C. § 103(a) is factually or legally viable. Appellant(s) therefore solicit(s) the Honorable Board to reverse each of the Examiner’s rejections.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 504213 and please credit any excess fees to such deposit account.

Respectfully Submitted,

DITTHAVONG MORI & STEINER, P.C.

March 28, 2011

Date

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**IX. CLAIMS APPENDIX**

1. - 22. (Canceled)

23. An apparatus comprising:

at least one processor; and

at least one memory including computer program code for one or more programs,

the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to perform at least the following,

determine to transmit an upload request for content from an apparatus via a network to a recipient, wherein the content comprising a plurality of data packets;

receive from the recipient in response to the upload request, an upload schedule relating to at least one of a time and a manner of uploading the content in an upload session;

determine to upload the content to the recipient in accordance with the upload schedule;

after an interruption occurs in the upload session, receive a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session; and

reestablish the upload session to upload to the recipient each of the remaining packets that is not completely uploaded.

24. An apparatus according to Claim 23, wherein the apparatus is further caused to:

delete the content from the memory after uploading the content to the recipient.

25. An apparatus according to Claim 23, wherein the upload schedule includes at least one instruction dependent upon a state of at least one of the recipient or the apparatus, and wherein the apparatus is further caused to:

receive information reflecting a current state of at least one of the recipient or the apparatus before uploading the content, wherein the apparatus uploads the content based upon the at least one instruction dependent upon the state, and the information reflecting the current state of at least one of the recipient or the apparatus.

26. An apparatus according to Claim 25, wherein the apparatus is further caused to receive information including at least one of a connectivity, location, actual movement or predicted movement of at least one of the recipient or the apparatus.

27. An apparatus according to Claim 23, wherein the upload schedule includes at least one instruction dependent upon a state of at least one network over which the content is uploaded, and wherein the apparatus is further caused to:

receive information reflecting a current state of the at least one network before uploading the content, wherein the content is uploaded based upon the at least one instruction dependent upon the state, and the information reflecting the current state, of the at least one network.

28. An apparatus according to Claim 27, wherein the information includes at least one of traffic on the at least one network or bandwidth available to at least one of the recipient or the apparatus on the at least one network.

29. An apparatus according to Claim 23, wherein the upload schedule includes at least one instruction defining processing the content, and wherein the apparatus is further caused to: process the content, and upload the processed content.

30. An apparatus according to Claim 29, wherein the apparatus processes the content by at least one of transcoding or truncating at least a portion of the content.

31. An apparatus according to Claim 29, wherein the apparatus processes the content by breaking up the upload content into a plurality of portions.

32. An apparatus according to Claim 23, wherein the upload schedule includes at least one instruction defining at least one deadline for uploading the content, and wherein the content is uploaded based upon the at least one deadline.

33. An apparatus according to Claim 23, wherein the content includes a plurality of pieces, wherein the upload schedule includes at least one instruction comprising an ordering of the plurality of pieces of the content, and wherein at least a portion of the content is uploaded based upon the ordering of the plurality of pieces of the content.

34. An apparatus according to Claim 23, wherein the upload schedule includes at least one instruction based upon the content and at least one network over which the content is uploaded, and wherein the content is uploaded based upon the content and the at least one network.

35. An apparatus according to Claim 23, wherein the upload schedule includes at least one instruction based upon at least one upload time of the content determined based upon the content and at least one network over which the content is uploaded, and wherein the content is uploaded based upon the at least one upload time.

36. An apparatus according to Claim 23, the apparatus is further caused to:  
receive a trigger to send an upload request, wherein the upload request is sent in response to  
the trigger independent of interaction from a user of the apparatus.

37. An apparatus according to Claim 23, wherein the upload request is sent with an upload descriptor that enables at least one of the apparatus or the recipient to determine if an interruption

occurs in uploading the plurality of data packets such that the recipient receives less than the plurality of data packets of the content, and if an interruption occurs in uploading the plurality of data packets, enables the recipient to recover the content.

38. An apparatus according to Claim 23, wherein the apparatus is further caused to delete the uploaded content from a storage of the sender without interaction with a user of the sender, after completing the upload session.

39. An apparatus according to Claim 23, wherein uploading the content comprises uploading the plurality of data packets and at least one information packet regarding at least one group of at least one data packet.

40. An apparatus according to Claim 39, wherein the apparatus is further caused to upload the at least one information packet that enables the recipient to monitor the uploaded data packets to determine, based upon at least one information packet, the at least one information packet including information of a number of data packets to be received between the at least one information packet and an information packet immediate before or after the at least one information packet, if an interruption occurs in uploading the plurality of data packets such that the recipient receives less than the plurality of data packets of the content, and if an interruption occurs in uploading the plurality of data packets, to thereby enable the recipient to recover the content such that the recipient receives the plurality of data packets.

41. An apparatus according to Claim 23, wherein the apparatus is further caused to determine if an interruption occurs in uploading the content such that the recipient only receives a portion of the content, and

if an interruption occurs in uploading the content, the apparatus is further caused to:



receive a length of the received portion of the content, and thereafter upload a remaining portion of the content to the recipient.

42. An apparatus according to Claim 41, wherein the remaining portion of the content is uploaded based upon one or more bit ranges corresponding to a list of one or more packet identifiers of the remaining one or more packets.

43. An apparatus according to Claim 41, wherein the length of the received portion of the content is received in accordance with a hypertext transfer protocol (HTTP) HEAD technique, and the remaining portion of the content is uploaded in accordance with one of a HTTP POST or a HTTP PUT technique, wherein the one of the HTTP POST or HTTP PUT technique includes uploading the remaining portion of the content including header information comprising one or more bit ranges corresponding to a list of one or more packet identifiers of the remaining one or more packets.

44. An apparatus according to Claim 23, wherein the apparatus is further caused to send a hypertext transfer protocol (HTTP) HEAD request to the recipient, and the remaining packets are uploaded in accordance with one of a HTTP POST or a HTTP PUT technique, wherein the one of the HTTP POST or HTTP PUT technique includes uploading the remaining packets including header information comprising a list of one or more packet identifiers of the remaining one or more packets.

45. An apparatus comprising:

at least one processor; and

at least one memory including computer program code for one or more programs,

the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to perform at least the following,

receive an upload request for content from a sender via a network, wherein the content comprising a plurality of data packets;

determine, in response to the request, an upload schedule relating to at least one of a time and a manner of the sender uploading the content to the apparatus in an upload session;

receive the content from the sender in accordance with the upload schedule;

track during the upload session received data packets and assembling a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session; and

after an interruption occurs in the upload session, determine to transmit the list of completely uploaded data packet identifiers to the sender for transmitting to the apparatus each of the remaining packets that is not completely uploaded.

46. An apparatus according to Claim 45, wherein the upload schedule includes at least one instruction dependent upon a state of at least one of the apparatus or the sender, and wherein the content is received based upon the at least one instruction dependent upon the state of at least one of the apparatus or the sender, and information reflecting a current state of at least one of the apparatus or the sender, the sender having received the information reflecting the current state before uploading the content to the apparatus.

47. An apparatus according to Claim 45, wherein the upload schedule includes at least one instruction dependent upon a state of at least one network over which the content is uploaded, and the content is received based upon the at least one instruction dependent upon the state of the at

least one network, and information reflecting a current state of the at least one network, the sender having received the information reflecting the current state before uploading the content to the apparatus.

48. An apparatus according to Claim 45, wherein the upload schedule includes at least one instruction defining processing the content to thereby direct the sender to process the content, and the processed content is received.

49. An apparatus according to Claim 45, wherein the upload schedule includes at least one instruction defining at least one deadline for uploading the content, and the content is received based upon the at least one deadline.

50. An apparatus according to Claim 45, wherein the content includes a plurality of pieces, and wherein determining an upload schedule comprises the upload schedule includes an ordering of the plurality of pieces of the content, and at least a portion of the content is received based upon the ordering of the plurality of pieces of the content.

51. An apparatus according to Claim 45, wherein the upload schedule includes at least one instruction based upon the content and at least one network over which the content is uploaded, and the content is received based upon the content and the at least one network.

52. An apparatus according to Claim 45, wherein the upload schedule includes at least one instruction based upon at least one upload time of the content, and the content is received based upon the at least one upload time, the at least one upload time of the content being determined based upon the content and at least one network over which the content is uploaded.

53. An apparatus according to Claim 45, wherein the apparatus is further caused to

receive an upload descriptor and thereafter receiving the plurality of data packets, determine if an interruption occurs in uploading the plurality of data packets such that the apparatus receives less than the plurality of data packets of the content; and if an interruption occurs in uploading the plurality of data packets, recover the content based upon the upload descriptor.

54. An apparatus according to Claim 53, wherein recovering the content comprises: determining at least one remaining data packet to be uploaded to the apparatus to thereby complete uploading of the plurality of data packets of the content; instructing the sender to send the at least one remaining data packet; and receiving the at least one remaining data packet such that the apparatus receives the plurality of data packets.

55. An apparatus according to Claim 53, wherein the apparatus is further caused to push the upload schedule to the sender thereby automatically uploading the content in accordance with the upload schedule, the upload descriptor includes information of a preferred time, place and technology for uploading the content, and the upload session is interrupted by user intervention.

56. An apparatus according to Claim 45, wherein the apparatus is further caused to: monitor the uploaded data packets to determine, based upon at least one information packet, if an interruption occurs in uploading the plurality of data packets such that the apparatus receives less than the plurality of data packets of the content; and if an interruption occurs in uploading the plurality of data packets, recover the content such that the apparatus receives the plurality of data packets.

57. An apparatus according to Claim 45, wherein the apparatus is further caused to:

determine an interruption occurs in uploading the content when the apparatus only receives a portion of the content;

if an interruption occurs in uploading the content, send to the sender a length of the received portion of the content to thereby enable the sender to thereafter upload a remaining portion of the content; and

receive a remaining portion of the content to thereby recover the content such that the apparatus receives all of the content.

58. A method comprising:

receiving an upload request for content from a sender via a network at an apparatus, wherein the content comprising a plurality of data packets;

determining, in response to the request, an upload schedule relating to at least one of a time and a manner of the sender uploading the content to the apparatus in an upload session;

receiving the content from the sender at the apparatus in accordance with the upload schedule;

tracking at the apparatus during the upload session received data packets and assembling a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session; and

after an interruption occurs in the upload session, determining to transmit the list of completely uploaded data packet identifiers from the apparatus to the sender for transmitting to the apparatus each of the remaining packets that is not completely uploaded.

59. (Canceled)

60. A method according to Claim 58, wherein the upload schedule includes at least one instruction dependent upon a state of at least one of the apparatus or the sender, and wherein the content is received based upon the state of at least one of the apparatus or the sender, and information reflecting a current state of at least one of the apparatus or the sender, the sender having received the information reflecting the current state before uploading the content to the apparatus.

61. A method according to Claim 60, wherein the state of at least one of the apparatus or the sender comprises at least one of a connectivity, location, actual movement or predicted movement of at least one of the apparatus or the sender.

62. A method according to Claim 58, wherein the upload schedule includes at least one instruction dependent upon a state of at least one network over which the content is uploaded, and wherein the content is received based upon the state of the at least one network, and information reflecting a current state of the at least one network, the sender having received the information reflecting the current state before uploading the content to the apparatus.

63. A method according to Claim 62, wherein the state of the at least one network comprises at least one of traffic on the at least one network or bandwidth available to at least one of the apparatus or the sender on the at least one network.

64. A method according to Claim 58, wherein the upload schedule includes at least one instruction defining processing the content, and wherein receiving the content comprises receiving the processed content.

65. A method according to Claim 64, wherein the upload schedule includes at least one instruction defining at least one of transcoding or truncating at least a portion of the content, and wherein receiving the content comprises receiving the at least one of the transcoded or truncated portion of the content.

66. A method according to Claim 64, wherein the upload schedule includes at least one instruction defining breaking up the upload content into a plurality of portions, and wherein receiving the content comprises receiving the portions of the upload content.

67. A method according to Claim 58, wherein the upload schedule includes at least one instruction defining at least one deadline for uploading the content, and wherein the content is received based upon the at least one deadline.

68. A method according to Claim 58, wherein the content includes a plurality of pieces, wherein the upload schedule includes at least one instruction comprising an ordering of the plurality of pieces of the content, and wherein receiving the content comprises receiving at least a portion of the content based upon the ordering of the plurality of pieces of the content.

69. A method according to Claim 58, wherein the upload schedule includes at least one instruction dependent based upon the content and at least one network over which the content is uploaded, and wherein the content is received based upon the content and the at least one network.

70. A method according to Claim 58, wherein the upload schedule includes at least one instruction dependent based upon at least one upload time of the content determined based upon

the content and at least one network over which the content is uploaded, and wherein the content is received based upon the at least one upload time.

71. A method according to Claim 58 further comprising:

sending a trigger to the sender to send an upload request before receiving the upload request, wherein an upload request is received in response to the trigger independent of interaction from a user of the sender.

72. A method according to Claim 58, further comprising:

determining an interruption occurs in uploading the plurality of data packets when the apparatus receives less than the plurality of data packets of the content; and if an interruption occurs in uploading the plurality of data packets, recovering the content based upon the list such that the apparatus receives the plurality of data packets.

73. A method according to Claim 72, wherein recovering the content comprises:

determining at least one remaining data packet to be received at the apparatus to thereby complete uploading of the plurality of data packets of the content; instructing the sender to send the at least one remaining data packet; and receiving the at least one remaining data packet such that the apparatus receives all of the content.

74. A method according to Claim 124, further comprising: pushing the upload schedule to the sender thereby automatically uploading the content in accordance with the upload schedule, wherein the upload descriptor includes information of a preferred time, place and technology for uploading the content, and the upload session is interrupted by user intervention.



75. A method according to Claim 58, further comprising:

monitoring the received data packets to determine, based upon at least one information packet, the at least one information packet including information of a number of data packets to be received between the at least one information packet and an information packet immediate before or after the at least one information packet, if an interruption occurs in uploading the plurality of data packets such that the apparatus receives less than the plurality of data packets of the content; and

if an interruption occurs in uploading the plurality of data packets, recovering the content such that the apparatus receives the plurality of data packets.

76. A method according to Claim 58 further comprising:

determining an interruption occurs in uploading the content when the apparatus only receives a portion of the content;

if an interruption occurs in uploading the content, sending a length of the received portion of the content to the sender; and

receiving a remaining portion of the content to thereby recover the content such that the apparatus receives all of the content.

77. A method according to Claim 76, wherein receiving a remaining portion of the content comprises receiving a remaining portion of the content based upon one or more bit ranges corresponding to a list of one or more packet identifiers of the remaining one or more packets.

78. A method according to Claim 76, wherein sending a length of the received portion of the content comprises sending a length of the received portion of the content in accordance with a hypertext transfer protocol (HTTP) HEAD technique, and the remaining portion of the content is

received in accordance with one of a HTTP POST or a HTTP PUT technique, wherein the one of the HTTP POST or HTTP PUT technique includes receiving the remaining portion of the content including header information that includes one or more bit ranges corresponding to a list of one or more packet identifiers of the remaining one or more packets.

79. A method according to Claim 58, further comprising receiving a hypertext transfer protocol (HTTP) HEAD request from the sender at the apparatus, wherein receiving a remaining portion of the content comprises receiving the remaining packets in accordance with one of a HTTP POST or a HTTP PUT technique, wherein the one of the HTTP POST or HTTP PUT technique includes receiving the remaining packets including header information comprising a list of one or more packet identifiers of the remaining one or more packets.

80. A computer program product for uploading content, the computer program product comprising at least one computer-readable storage medium having computer-readable program code portions stored therein that in response to execution by a processor, cause an apparatus to at least perform the following:

- receiving an upload request for content from a sender via a network, wherein the content comprising a plurality of data packets;
- determining, in response to the request, an upload schedule relating to at least one of a time and a manner of the sender uploading the content to the apparatus in an upload session;
- receiving the content from the sender in accordance with the upload schedule;
- tracking during the upload session received data packets and assembling a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session; and

after an interruption occurs in the upload session, determining to transmit the list of completely uploaded data packet identifiers to the sender for transmitting to the apparatus each of the remaining packets that is not completely uploaded.

81. - 85. (Canceled)

86. A computer program product according to Claim 80, wherein the upload schedule includes at least one instruction defining processing the content to thereby direct the sender to process the content, and the processed content is received.

87. A computer program product according to Claim 86, wherein the upload schedule includes at least one instruction defining at least one of transcoding or truncating at least a portion of the content, and wherein receiving the content comprises receiving the at least one of the transcoded or truncated portion of the content.

88. A computer program product according to Claim 86, wherein the upload schedule includes at least one instruction defining breaking up the upload content into a plurality of portions, and wherein receiving the content comprises receiving the portions of the upload content.

89. A computer program product according to Claim 80, wherein the upload schedule includes at least one instruction defining at least one deadline for uploading the content, and the content is received based upon the at least one deadline.

90. A computer program product according to Claim 80, wherein the content includes a plurality of pieces, and wherein determining an upload schedule comprises the upload schedule

includes an ordering of the plurality of pieces of the content, and at least a portion of the content is received based upon the ordering of the plurality of pieces of the content.

91. A computer program product according to Claim 80, wherein the upload schedule includes at least one instruction based upon the content and at least one network over which the content is uploaded, and the content is received based upon the content and the at least one network.

92. A computer program product according to Claim 80, wherein the upload schedule includes at least one instruction based upon at least one upload time of the content determined based upon the content and at least one network over which the content is uploaded, and the content is received based upon the at least one upload time.

93. A computer program product according to Claim 80, wherein the apparatus is caused to further perform:

sending a trigger to the sender to send an upload request before receiving the upload request, wherein an upload request is received in response to the trigger independent of interaction from a user of the sender.

94. A computer program product according to Claim 80, wherein the apparatus is caused to further perform:

receiving an upload descriptor and thereafter receiving the content, determining if an interruption occurs in uploading the plurality of data packets such that the apparatus receives less than the plurality of data packets of the content; and if an interruption occurs in uploading the plurality of data packets, recovering the content based upon the upload descriptor.

95. A computer program product according to Claim 94, wherein recovering the content comprises:

determining at least one remaining data packet to be received at the apparatus to thereby complete uploading of the plurality of data packets of the content;  
instructing the sender to send the at least one remaining data packet; and  
receiving the at least one remaining data packet such that the apparatus receives all of the content.

96. A computer program product according to Claim 94, wherein the apparatus is caused to further perform: pushing the upload schedule to the sender thereby automatically uploading the content in accordance with the upload schedule, wherein the upload descriptor includes information of a preferred time, place and technology for uploading the content, and the upload session is interrupted by user intervention.

97. A computer program product according to Claim 96, wherein the apparatus is caused to further perform:

monitoring the received data packets to determine, based upon at least one information packet, the at least one information packet including information of a number of data packets to be received between the at least one information packet and an information packet immediate before or after the at least one information packet, if an interruption occurs in uploading the plurality of data packets such that the apparatus receives less than the plurality of data packets of the content; and  
if an interruption occurs in uploading the plurality of data packets, recovering the content such that the apparatus receives the plurality of data packets.

98. A computer program product according to Claim 80, wherein the apparatus is caused to further perform:

determining an interruption occurs in uploading the content when the apparatus only receives a portion of the content;

if an interruption occurs in uploading the content, sending a length of the received portion of the content to the sender; and

receiving a remaining portion of the content to thereby recover the content.

99. A computer program product according to Claim 98, wherein the remaining portion of the content is received based upon one or more bit ranges corresponding to a list of one or more packet identifiers of the remaining one or more packets.

100. A computer program product according to Claim 98, wherein sending a length of the received portion of the content comprises sending a length of the received portion of the content in accordance with a hypertext transfer protocol (HTTP) HEAD technique, and the remaining portion of the content is received in accordance with one of a HTTP POST or a HTTP PUT technique, wherein the one of the HTTP POST or HTTP PUT technique includes receiving the remaining portion of the content including header information that includes one or more bit ranges corresponding to a list of one or more packet identifiers of the remaining one or more packets.

101. A computer program product according to Claim 100, further comprising receiving a hypertext transfer protocol (HTTP) HEAD request from the sender at the apparatus, wherein receiving a remaining portion of the content comprises receiving the remaining packets in accordance with one of a HTTP POST or a HTTP PUT technique, wherein the one of the HTTP

POST or HTTP PUT technique includes receiving the remaining packets including header information comprising a list of one or more packet identifiers of the remaining one or more packets.

102. A method comprising:

determining to transmit an upload request for content from an apparatus via a network to a recipient, wherein the content comprising a plurality of data packets;

receiving from the recipient at the apparatus, in response to the upload request, an upload schedule relating to at least one of a time and a manner of uploading the content in an upload session;

determining by the apparatus to upload the content to the recipient in accordance with the upload schedule;

after an interruption occurs in the upload session, receiving at the apparatus a list of completely uploaded data packet identifiers each of which uniquely identifies one corresponding data packet within the upload session; and

reestablishing by the apparatus the upload session to upload to the recipient each of the remaining packets that is not completely uploaded.

103. A method according to Claim 102, further comprising deleting the content from the memory after uploading the content to the recipient.

104. A method according to Claim 102, wherein the upload schedule includes at least one instruction dependent upon a state of at least one of the recipient or the apparatus, and wherein the method further comprising receiving information reflecting a current state of at least one of the recipient or the apparatus before uploading the content to thereby enable the apparatus to

upload the content based upon the at least one instruction dependent upon the state, and the information reflecting the current state, of at least one of the recipient or the apparatus.

105. A method according to Claim 104, further comprising receiving information reflecting a current state comprising at least one of a connectivity, location, actual movement or predicted movement of at least one of the recipient or the apparatus.

106. A method according to Claim 102, wherein the upload schedule includes at least one instruction dependent upon a state of at least one network over which the content is uploaded, and wherein the method further comprising receiving information reflecting a current state of the at least one network before uploading the content to thereby enable the apparatus to upload the content based upon the at least one instruction dependent upon the state, and the information reflecting the current state, of the at least one network.

107. A method according to Claim 106, further comprising receiving information comprising at least one of traffic on the at least one network or bandwidth available to at least one of the recipient or the apparatus on the at least one network.

108. A method according to Claim 102, wherein the upload schedule includes at least one instruction defining processing the content, and wherein the method further comprising processing the content thereby uploading the processed content.

109. A method according to Claim 108, further comprising at least one of transcoding and truncating at least a portion of the content thereby uploading the at least one of the transcoded or truncated portion of the content.



110. A method according to Claim 108, further comprising breaking up the upload content into a plurality of portions to thereby uploading the portions of the upload content.

111. A method according to Claim 102, wherein the upload schedule includes at least one instruction defining at least one deadline for uploading the content, and wherein the method further comprising uploading the content based upon the at least one deadline.

112. A method according to Claim 102, wherein the content includes a plurality of pieces, wherein the upload schedule includes at least one instruction comprising an ordering of the plurality of pieces of the content, and wherein the method further comprising uploading at least a portion of the content based upon the ordering of the plurality of pieces of the content.

113. A method according to Claim 102, wherein the upload schedule includes at least one instruction based upon the content and at least one network over which the content is uploaded, and wherein the method further comprising uploading the content based upon the content and the at least one network.

114. A method according to Claim 102, wherein the upload schedule includes at least one instruction based upon at least one upload time of the content determined based upon the content and at least one network over which the content is uploaded, and wherein the method further comprising uploading the content based upon the at least one upload time.

115. A method according to Claim 102, further comprising receiving a trigger to send an upload request before sending the upload request, and sending the upload request in response to the trigger independent of interaction from a user of the sender.

116. A method according to Claim 102, further comprising sending an upload descriptor and thereafter uploading the content, determining if an interruption occurs in uploading the plurality of data packets such that the recipient receives less than the plurality of data packets of the content, and

if an interruption occurs in uploading the plurality of data packets, enabling the recipient to recover the content based upon the upload descriptor such that the recipient receives the plurality of data packets.

117. A method according to Claim 116, further comprising deleting the uploaded content from a storage of the sender without interaction with a user of the sender, after completing the upload session.

118. A method according to Claim 102, wherein the content comprises a plurality of data packets, and wherein the method further comprising uploading the plurality of data packets and at least one information packet regarding at least one group of at least one data packet.

119. A method according to Claim 118, further comprising:

uploading the at least one information packet that enables the recipient to monitor the uploaded data packets to determine, based upon at least one information packet, the at least one information packet including information of a number of data packets to be received between the at least one information packet and an information packet immediate before or after the at least one information packet, if an interruption occurs in uploading the plurality of data packets such that the recipient receives less than the plurality of data packets of the content, and

if an interruption occurs in uploading the plurality of data packets, recovering the content such that the recipient receives the plurality of data packets.

120. A method according to Claim 102, further comprising:

determining if an interruption occurs in uploading the content such that the recipient only receives a portion of the content, and

if an interruption occurs in uploading the content, receiving a length of the received portion of the content to thereby uploading a remaining portion of the content to the recipient.

121. A method according to Claim 120, further comprising uploading a remaining portion of the content based upon one or more bit ranges corresponding to a list of one or more packet identifiers of the remaining one or more packets.

122. A method according to Claim 120, further comprising receiving a length of the received portion of the content in accordance with a hypertext transfer protocol (HTTP) HEAD technique; and uploading the remaining portion of the content in accordance with one of a HTTP POST or a HTTP PUT technique, wherein the one of the HTTP POST or HTTP PUT technique includes uploading the remaining portion of the content including header information comprising one or more bit ranges corresponding to a list of one or more packet identifiers of the remaining one or more packets.

123. A method according to Claim 122, further comprising: sending a hypertext transfer protocol (HTTP) HEAD request to the recipient; and uploading the remaining packets are uploaded in accordance with one of a HTTP POST or a HTTP PUT technique, wherein the one of the HTTP POST or HTTP PUT technique includes uploading the remaining packets including

header information comprising a list of one or more packet identifiers of the remaining one or more packets.

124. A method according to Claim 58, further comprising:

receiving an upload descriptor of the content from the sender via the network at the apparatus in accordance with the upload schedule, the upload descriptor including a size of the content; and  
reestablishing by the apparatus the upload session further based upon the upload descriptor.

125. A method according to Claim 124, further comprising:

determining an interruption occurs in uploading the plurality of data packets when the apparatus receives less than the plurality of data packets of the content; and  
if an interruption occurs in uploading the plurality of data packets, recovering the content based upon the upload descriptor such that the apparatus receives the plurality of data packets.

126. A method according to Claim 78, wherein the at least one information packet further includes information uniquely describing the data packets before or after the information packet.

127. A method according to Claim 126, wherein information uniquely describing the data packets includes a sequence of packet cyclic redundancy checks.

128. A method according to Claim 78, wherein the number of data packets to be received between two information packets varies.

129. A method according to Claim 58, wherein the network includes a cellular network.

130. A method according to Claim 102, further comprising: after the interruption, receiving at the apparatus an instruction to reestablish the upload session, the instruction—including an identifier of the content and an identifier of the one interrupted packet.

**X. EVIDENCE APPENDIX**

Appellants are unaware of any evidence that is required to be submitted in the present Evidence Appendix.

**XI. RELATED PROCEEDINGS APPENDIX**

Appellants are unaware of any related proceedings that are required to be submitted in the present Related Proceedings Appendix.